

Appl. No.: 09/963,844
Amtd. Dated: November 29, 2005
Reply to Office Action of: June 29, 2005

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Listing of Claims:

Claim 1 (original): A method for communicating in a system that includes at least a first base station connected to a packet network, the first base station serving a first cell, said method comprising:

connecting a second base station to the packet network;
the second base station automatically identifying the first base station;
receiving, at the first base station, communications from a wireless device in the first cell served by the first base station; and
handing off the wireless device from the first cell to a second cell served by the second base station by a two way exchange of information between the first base station and the second base station.

Claim 2 (original): The method of claim 1, further comprising:

the first base station and the second base station exchanging information over the packet network to determine a coverage area for the second cell served by the second base station.

Claim 3 (original): The method of claim 1, wherein the step of the second base station identifying the first station includes:

the second base station transmitting to a carrier database a message requesting addresses for other base stations connected to the packet network;
the carrier database transmitting an address for the first base station to the second base station; and
the second base station transmitting a message to the first base station using the address for the first base station.

Claim 4 (original): The method of claim 3, further comprising:

the second base station transmitting a message to a central database requesting an address for the carrier database; and
the central database, in response to receiving the message from the second base station, transmitting an address for the carrier database to the second base station.

Claim 5 (original): The method of claim 1, wherein the step of the second base station identifying the first base station includes:

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the second base station transmitting a broadcast message on the packet network; and

the first base station transmitting a reply message to the second base station in response to receiving the broadcast message.

Claim 6 (original): The method of claim 1, wherein the wireless device includes a computer.

Claim 7 (original): The method of claim 6, wherein the computer includes a personal digital assistant (PDA).

Claim 8 (original): The method of claim 1, wherein the wireless device uses the mobile Internet protocol (IP) to send the communication to the first base station.

Claim 9 (original): The method of claim 1, wherein the first base station connects to the packet network via an Ethernet compatible interface.

Claim 10 (original): A system, comprising:

a first base station that controls communications with one or more wireless devices in a first cell;

a second base station that controls communications with one or more wireless devices in a second cell; and

a packet network connecting the first base station and the second base station; wherein the first base station automatically identifies the second base station after being connected to the packet network; and

wherein the first base station and the second base station engage in a two way information exchange over the network to hand off one or more of the wireless devices in the first cell from the first cell to the second cell.

Claim 11 (original): The system of claim 10, wherein the first base station is further capable of engaging in a two way exchange of information with the second base station to determine a coverage area for the first cell.

Claim 12 (original): The system of claim 10, wherein the first base station further transmits to a carrier database a message requesting addresses for other base stations connected to the

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packet network, receives from the carrier database an address for the second base station, and transmits a message to the second base station using the address for the second base station.

Claim 13 (currently amended): The ~~method~~ system of claim 12, wherein the second base station further transmits a message to a central database requesting an address for the carrier database, receives from the central database the address for the carrier database, and transmits a message to the carrier database using the address for the carrier database.

Claim 14 (currently amended): The ~~method~~ of system claim 10, wherein the first base station further transmits a broadcast message on the packet network, and receives a reply message from the second base station in response to the broadcast message.

Claim 15 (original): The system of claim 10, wherein at least one of the wireless devices includes a cellular phone.

Claim 16 (original): The system of claim 10, wherein at least one of the wireless devices includes a computer.

Claim 17 (original): The system of claim 16, wherein the computer includes a personal digital assistant (PDA).

Claim 18 (original): The system of claim 10, wherein the wireless device communicates with the first base station using mobile internet protocol (IP).

Claim 19 (original): The system of claim 10, wherein the first base station connects to the packet network via an Ethernet compatible interface.

Claim 20 (original): A base station for communicating with a wireless device, comprising:
a network interface that connects to a packet network;
an antenna interface that connects to an antenna for communicating with one or more wireless devices in a first cell served by the base station;

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a memory that includes:

a program for automatically identifying other base stations, and
a program for engaging in a two way information exchange with one of the
other base stations to hand off, from the first cell to a second cell served by the other base
station, one or more of the wireless devices in the first cell; and
a processor that executes the program.